



# RPS-102

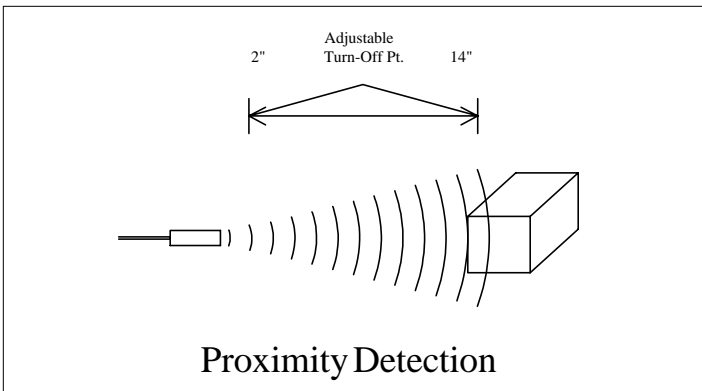
## Features

- Various Sensing Ranges
- Adjustable Delay Controls
- Broad Sensing Beam
- 2 Multiplexed Transducers
- Low Frequency - 38.5kHz
- LED Indicators
- 2-Way Power Operation
- Isolated Form C Relay Outputs
- Small Remote Transducers
- Small Electronic Controller

The RPS-102 has 2 multiplexed transducers with independent range control adjustments, LED indicators, and form C relay outputs. This sensor also has a unique master and slave feature which enables many of the same units to be used within close proximity of one another without cross-talk interference. For example, if three sensors are needed in a close area, one sensor would be left as a master and the other two would be slaves. This is done by means of the X IN, X OUT, and GND connection on the board. One sensor (master) would



send a signal by means of the X OUT and GND terminals. These would be connected to the X IN and GND terminals of the other two sensors (slaves). With the sensors connected in this way, all units would be transmitting and receiving at the same time. This then would prevent cross-talk and enable all three sensors, or all six transducers, to be used at the same time in close proximity of one another. There are also separate turn ON and turn OFF DELAY potentiometers provided for each transducer. All four DELAY controls are located alongside the black module inside the enclosure box. The remote transducers allow for mounting of the sensor heads in cramped spaces while the controller is out of the way. The (2) independent isolated form C relays furnish N.O. and N.C. outputs. This sensor, which operates at a frequency of 38.5kHz, has a broad sensing beam which allows for detection of an object at greater angles of tilt. Sensing ranges available for the RPS-102 include 2" to 14", 5" to 72", and 10" to 240". Mounting flanges, LED indicators, ranging potentiometers, and 6-ft. transducer cables are included. Optional cable lengths are available.



## Proximity Detection

Proximity detection is the detection of an object in a given range. The detection range of the RPS-102 is controlled by the "Range Control" potentiometers located on the front cover of the controller. Any object within the desired range is detected, while objects out of range are ignored. The detect point is independent of size, material, and reflectivity.

# Specifications:

Operational Range: Adjustable 2" to 14"  
Adjustable 5" to 72"  
Adjustable 10" to 240"

Power Input: 120VAC  
15 - 24VDC

Input Current: 40 Milliamps

Ambient Temperature: 0°C to 60°C or 32°F to 140°F

Controller: Metal Enclosed  
Transducer: Aluminum  
Transducer Housing: Plastic

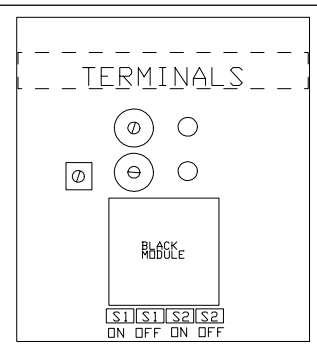
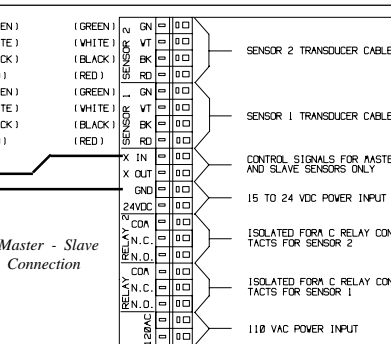
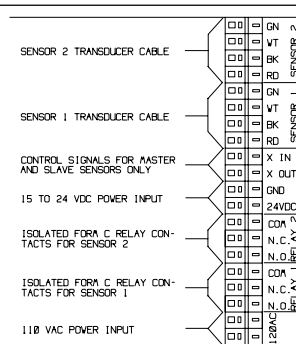
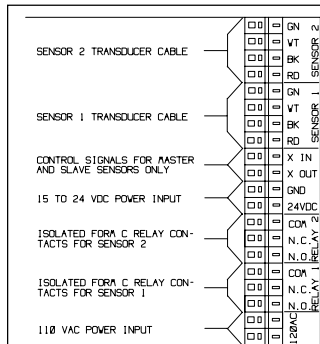
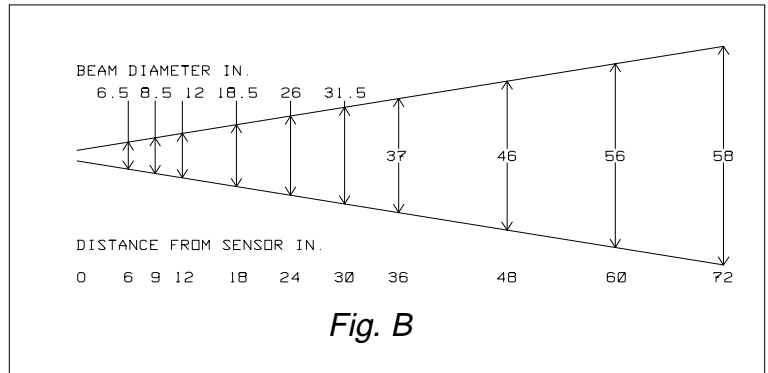
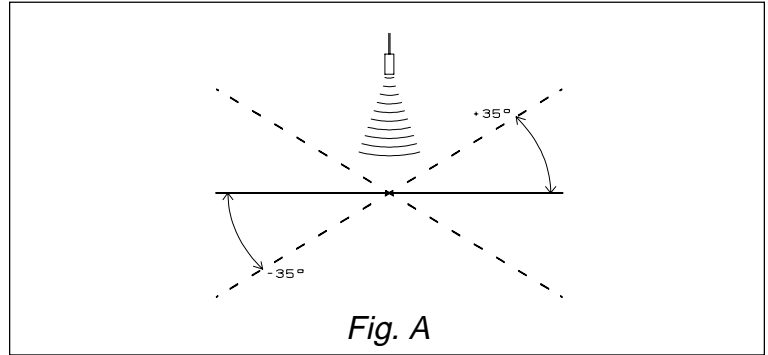
Output: N.O., N.C. (one for each transducer) Isolated Form C Relay  
.5 Amp Maximum at 120VAC

Transducer Frequency: 38.5KHz

Adjustable Response Time:

	2" to 14"	5" to 72"	10" to 240"
ON	30mS - 2S	100mS - 2S	250mS - 2S
OFF	30mS - 2S	100mS - 2S	250mS - 2S

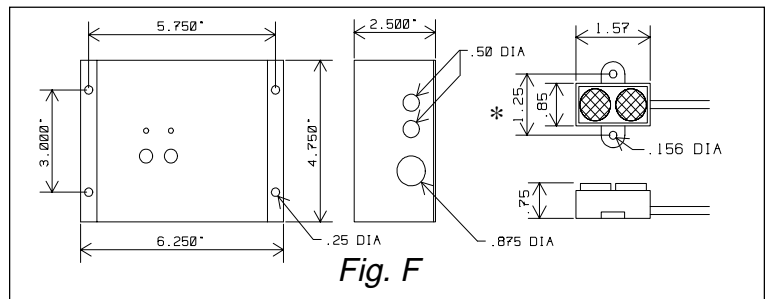
Weight of Controller: 34.2 ounces  
Weight of Each Transducer: 2.2 ounces



## Figure:

- A - Angle of Tilt
- B - Beam Spread
- C - Wiring Diag.- For RPS-102
- D - Wiring Diag.- For Master - Slave configuration
- E - Delay Controls - For RPS-102
- F - Mounting Dimensions

\* Dimensions show one transducer. RPS-102 comes with (2) identical transducers.



PART NUMBER	RANGE	OUTPUT
RPS-102-14	2" - 14"	1 Isolated form C Relay for each Transducer
RPS-102-72	5" - 72"	1 Isolated form C Relay for each Transducer
RPS-102-240	10" - 240"	1 Isolated form C Relay for each Transducer